

REMARKS

In response to the restriction requirement, Applicants elect Group I, a method of nucleic acid sequencing (now encompassed by new claims 46-63), without traverse. Applicants reserve the right to pursue claims drawn to the subject matter of Claims 28-45 in one or more divisional application(s).

Claims 1-45 have been canceled and new claims 46-63 are presented for examination. Claims 46-63 are drawn to the elected invention. Support for the new claims is detailed in the following table:

Claim	Exemplary Support in Specification
<p>46. (New) A nucleic acid sequencing method comprising:</p> <p>providing a DNA sample containing a plurality of circular single-stranded DNA template molecules each comprising a rolling circle amplification (RCA) primer-annealing sequence and a target sequence, each target sequence being a fragment from a shotgun library;</p> <p>annealing an RCA amplification primer to said RCA primer-annealing sequence of the template molecules, and amplifying the target sequences by rolling-circle amplification, wherein the rolling circle amplification products are randomly immobilized on a solid support;</p> <p>sequentially probing the solid support with a panel of probes, and preparing hybridization spectrums for the amplified target sequences;</p> <p>identifying the location of the target sequences within a reference sequence by comparing the hybridization spectrums to</p>	<p>Original claim 1.</p> <p>Original claim 1. The language "a rolling circle amplification (RCA) primer-annealing sequence" is also supported by original claim 1 in the contacting and amplification steps. Original claim 1 ("comparing" step), which recites determining a location of the target sequences within a reference sequence. The fragments being shotgun library fragments is also explicitly supported at page 10, lines 19-20.</p> <p>Original claim 1 ("contacting" step). See also, page 12, lines 19-21. Original claim 1 ("amplifying" step). Also see page 9, lines 6-7. Original claim 1 ("ensuring" step). Also see page 15, lines 16-20, and page 16, lines 12-15.</p> <p>Original claim 1 ("probing" step). Also see page 14, lines 12-15; and page 15, lines 20-24.</p> <p>Original claim 1 ("comparing" step). Also see page 26, lines 25-30; page 14, line 14; and</p>

expected hybridization spectrums for the reference sequence, with a highest scoring spectrum within the reference sequence representing the likely location of a target sequence; and identifying any differences in sequence between the target sequences and the reference sequence by resolving discrepancies between the hybridization spectrums for the target and said highest scoring spectrum.	page 9, lines 12, to page 10, line 3. Original claim 1 ("computing" step). Also see page 26, lines 25-32; and page 27, line 14, to page 28, line 4.
Claim 47	Original claim 2.
Claim 48	Original claim 3.
Claim 49	Original claim 4.
Claim 50	Original claims 1, 5 and 6.
Claim 51	Original claims 1, 5, 6, 7 and 8.
Claim 52	Original claims 1 and 10.
Claim 53	Original claims 1 and 11.
Claim 54	Original claims 1 and 12.
Claim 55	Original claims 1, 12 and 13.
Claim 56	Original claims 1, 12, 13 and 14.
Claim 57	Original claim 16.
Claim 58	Original claim 17.
Claim 59	Original claim 18. The shotgun library is explicitly supported at page 10, lines 19-20.
Claim 60	Original claim 19.
Claim 61	Original claim 25.
Claim 62	Original claim 26.
Claim 63	Original claim 27.

In view of the foregoing, Applicants respectfully submit that this application is in condition for examination.

The Examiner is requested to call the undersigned if any questions or comments arise.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit

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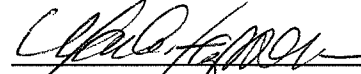
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